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PAR 214

1 June 64

SUBJECT: Roller Transport Reversal Processor (12-Inch)

TASK/PROBLEM

1. Design and fabricate a versatile, self-threading photographic processor capable of handling both cut sheets and continuous webs of photographic material and adaptable to a process yielding either standard negative or reversal images. Interchange between processes to be accomplished with a minimum amount of effort.

DISCUSSION

2. General Assembly design (Fig. 1) and approximately 80% of all subassemblies have been completed. The design of the machine will permit daylight operation with continuous strip material and will utilize the standard Air Force A-9 magazine for this purpose.

3. The roller transport racks will be designed around two rows of rollers which will alternately contact each side of the film rather than around the common center roller, as is used on the Versamat II. This will permit smoother machine operation, allow easy adjustment, and will reduce stretch and wear on the drive chains. Crossover and rack turn around assemblies will be designed to use rollers rather than shoes used in previous models.

4. The end of roll sensor will be redesigned to use air. This sensor will control the replenisher feed system through on-off solenoid valves and by passes. Replenisher rates will be controlled through variable area flow meters similar to Fischer and Porter Rotosights.

5. A double pass dryer twice the length of those used on previous models will permit continuous feed of either cut sheet or continuous strip material. A separate slack loop and take-up assembly incorporating a viewer and trimmer will be used during continuous operation. This will be easily replaced by a reclining bin for cut-sheet operation.

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PLANNED ACTIVITIES

6. Eight designers presently assigned to the project will continue to complete the remaining subassembly and detail drawings. Fabrication of parts will start as drawing releases are completed.